

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-29 (Canceled).

30 (Currently Amended). An apparatus for forming thin film on each of a plurality of substrate to make photo-mask blanks, comprising:

a sputtering chamber comprising a single sputtering target therein for carrying out sputtering to form the thin film on a surface of each substrate in a sputtering time,

a first load lock mechanism for introducing the substrate into the sputtering chamber and a second load lock mechanism for discharging the substrate with a film formed thereon in the sputtering chamber,

each of said first load lock mechanism and the second load lock mechanism comprising a load lock chamber, and

a conveyer for conveying each of the plurality of substrates one by one for introducing each of the substrates into the sputtering chamber,

wherein said conveyer is capable of conveying one substrate at a time to introduce the substrate in the sputtering chamber so that the sputtering time for carrying out the sputtering for a substrate and an interval time which runs from an end of sputtering for one substrate to a start of sputtering for a next substrate are respectively made constant, and

wherein the load lock chamber is capable of accepting one substrate at one time, so that introducing each substrate into and discharging each substrate from the sputtering chamber can be continuously made at a constant interval.

31 (Currently Amended). The apparatus of Claim 30 wherein said apparatus comprises a first load lock mechanism solely for introducing the substrate into the sputtering chamber and a second load lock mechanism solely for discharging the substrate with a film formed thereon in the sputtering chamber, and the first load lock mechanism is capable of keeping a substrate subject to the film forming standby until a substrate with film formed thereon by a previous film forming is transferred to the second load lock mechanism.

32 (Currently Amended). The apparatus of Claim 31 wherein each of said first load lock mechanism and the second load lock mechanism comprises a load lock chamber, and said load lock mechanism is capable of venting for making the inside room of the load lock chamber into atmospheric pressure for transferring the substrate with outside, evacuating the inside room of the load lock chamber up to a predetermined degree of vacuum for transferring the substrate with the sputtering chamber, and wherein said load lock chamber accepts one substrate at one time, so that introducing each substrate into and discharging each substrate from the sputtering chamber be continuously made at a constant interval.

33 (Previously Presented). The apparatus of Claim 30 wherein the sputtering chamber comprising a substrate holder having a rotation mechanism and a target holder, and wherein the substrate holder is capable of holding the substrate in a horizontal state, and the substrate holder and the target holder are placed so that the target be held opposite to the substrate, a center axis of the target deviating from a center axis of the substrate.

34 (Previously Presented). The apparatus of Claim 33 wherein the substrate holder and the target holder are placed so that a surface of the substrate on which the film is formed and a surface of the target forms a predetermined angle.

35 (Previously Presented). The apparatus of Claim 34 wherein the predetermined angle is 10 to 30 degree.

36 (Previously Presented). The apparatus of Claim 34 wherein the predetermined angle is 10 to 15 degree.

37 (Previously Presented). The apparatus of Claim 33 wherein the substrate holder is rotatable around its center axis and the number of rotations of the substrate is controlled to be an integer during the film formation.

38 (Previously Presented). The apparatus of Claim 37 wherein the substrate holder is rotatable around its center axis, and the film formation is controlled by detecting a rotation angle of the substrate from the start to the end of the film forming so that the number of rotations of the substrate during the film formation is an integer.

39 (Previously Presented). The apparatus of Claim 37 wherein a position of the substrate at the start of film forming is detected by a sensor, and, when the same position is detected by the sensor after an integer times of rotation of the substrate, the film forming is stopped.

40 (Currently Amended). A method for preparing a plurality of photo mask blanks which comprises

forming a thin film on each of a plurality of substrates in turn, whereby said forming is employed by use of an apparatus, said apparatus comprising:

a sputtering chamber comprising a single sputtering target therein for carrying out sputtering to form the thin film on a surface of each substrate in a sputtering time,

a first load lock mechanism for introducing the substrate into the sputtering chamber and a second load lock mechanism for discharging the substrate with a film formed thereon in the sputtering chamber,

each of said first load lock mechanism and second load lock mechanism comprising a load lock chamber,

and

a conveyer for conveying the plurality of substrates one by one for introducing each of the substrates into the sputtering chamber,

wherein said conveyer conveys one substrate at a time to introduce the substrate in the sputtering chamber so that a sputtering time for carrying out the sputtering for a substrate and an interval time which runs from an end of sputtering for one substrate to a start of sputtering for next substrate are respectively made constant and

wherein the load lock chamber accepts one substrate at one time, so that introducing each substrate into and discharging each substrate from the sputtering chamber can be continuously made at a constant interval.

41 (Currently Amended). The method of Claim 42 wherein ~~each of said first lead lock~~

~~mechanism and said second load lock mechanism comprising a load lock chamber, wherein said load lock mechanism is capable of venting for making the inside room of the load lock chamber atmospheric pressure for transferring the substrate with outside, evacuating the inside room of the load lock chamber up to a predetermined degree of vacuum for transferring the substrate with the sputtering chamber, and wherein the load lock chamber accepts one substrate at one time, so that introducing each substrate into and discharging each substrate from the sputtering chamber is continuously made at a constant interval.~~

42 (Currently Amended). The method of Claim 40 wherein ~~said apparatus comprises a first load lock mechanism solely for introducing the substrate into the sputtering chamber and a second load lock mechanism solely for discharging the substrate with a film formed thereon in the sputtering chamber, wherein the first load lock mechanism keeps a substrate subject to the film forming standby until a substrate with film formed thereon by a previous film forming is transferred to the second load lock mechanism.~~

43 (New). The method of Claim 41 wherein ~~said predetermined degree of vacuum is 2×10^{-5} pa or lower.~~